



**MATHESON**

ask...The Gas Professionals™

## Safety Data Sheet

Material Name: Oxygen/Argon Gas Mixture

SDS ID: 00244421

### \*\*\*Section 1 - IDENTIFICATION\*\*\*

#### Manufacturer Information

MATHESON TRI-GAS, INC.  
150 Allen Road, Suite 302  
Basking Ridge, NJ 07920

General Information: 1-800-416-2505  
Emergency #: 1-800-424-9300 (CHEMTREC)  
Outside the US: 703-527-3887 (Call collect)

### Product Identifier: Oxygen/Argon Gas Mixture

#### Product Use

industrial

#### Restrictions on Use

None known.

### \*\*\*Section 2 - HAZARDS IDENTIFICATION\*\*\*

#### GHS Classification

Gas under pressure, Compressed gas

#### GHS LABEL ELEMENTS

##### Symbol(s)



#### Signal Word

WARNING

#### Hazard Statement(s)

Contains gas under pressure; may explode if heated

#### Precautionary Statement(s)

#### Storage

Protect from sunlight. Store in a well-ventilated place.

#### Other Hazards which do not Result in Classification

May cause asphyxia. May cause frostbite upon sudden release of compressed gas.

### \*\*\*Section 3 - COMPOSITION / INFORMATION ON INGREDIENTS\*\*\*

CAS#	Component	Percent
7440-37-1	Argon	80.5-99.9
7782-44-7	Oxygen	0.1-19.5

### \*\*\*Section 4 - FIRST AID MEASURES\*\*\*

#### Inhalation

If adverse effects occur, remove to uncontaminated area. Give artificial respiration if not breathing. If breathing is difficult, oxygen should be administered by qualified personnel. Get immediate medical attention.

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**Skin**  
If frostbite or freezing occur, immediately flush with plenty of lukewarm water (105-115 F; 41-46 C). DO NOT USE HOT WATER. If warm water is not available, gently wrap affected parts in blankets. Get immediate medical attention.

**Eyes**  
Flush eyes with plenty of water for at least 15 minutes. Then get immediate medical attention.

**Ingestion**  
If swallowed, get medical attention.

**Note to Physicians**  
For inhalation, consider oxygen.

**Symptoms: Immediate**  
frostbite, suffocation

**Symptoms: Delayed**  
No information on significant adverse effects.

## \*\*\*Section 5 - FIRE FIGHTING MEASURES\*\*\*

See Section 9 for Flammability Properties

**Specific Hazards Arising from the Chemical**  
Negligible fire hazard. Containers may rupture or explode if exposed to heat.

**Extinguishing Media**  
carbon dioxide, regular dry chemical

**Unsuitable Extinguishing Media**  
None known.

**Protective Equipment and Precautions for Firefighters**  
Wear full protective fire fighting gear including self contained breathing apparatus (SCBA) for protection against possible exposure.

**Fire Fighting Measures**  
Move container from fire area if it can be done without risk. Cool containers with water spray until well after the fire is out. Stay away from the ends of tanks. For fires in cargo or storage area: Cool containers with water from unmanned hose holder or monitor nozzles until well after fire is out. If this is impossible then take the following precautions: Keep unnecessary people away, isolate hazard area and deny entry. Let the fire burn. Use extinguishing agents appropriate for surrounding fire. Cool containers with water. Apply water from a protected location or from a safe distance.

## \*\*\*Section 6 - ACCIDENTAL RELEASE MEASURES\*\*\*

**Personal Precautions**  
Wear personal protective clothing and equipment, see Section 8.

**Environmental Precautions**  
Avoid release to the environment.

**Methods for Containment**  
Keep unnecessary people away, isolate hazard area and deny entry. Ventilate closed spaces before entering.

**Cleanup Methods**  
Stop leak if possible without personal risk.

## \*\*\*Section 7 - HANDLING AND STORAGE\*\*\*

**Handling Procedures**  
Wash thoroughly after handling. When using, do not eat, drink or smoke.

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## Storage Procedures

Store and handle in accordance with all current regulations and standards. Avoid heat, flames, sparks and other sources of ignition. Store in a well-ventilated area. Protect from sunlight. Store below 125 F (52 C). See original container for storage recommendations. Keep separated from incompatible substances.

**Incompatibilities** amines, bases, combustible materials, halocarbons, metal salts, metals, oxidizing material, reducing agents

## \*\*\*Section 8 - EXPOSURE CONTROLS / PERSONAL PROTECTION\*\*\*

### Component Exposure Limits

#### Argon (7440-37-1)

**ACGIH:** Simple asphyxiant (See Appendix F: Minimal Oxygen Content)

### Component Biological Limit Values

There are no biological limit values for any of this product's components.

### Engineering Controls

Provide local exhaust or process enclosure ventilation system. Ensure compliance with applicable exposure limits.

## PERSONAL PROTECTIVE EQUIPMENT

### Eyes/Face

For the gas: Eye protection not required, but recommended. For the liquid: Wear splash resistant safety goggles with a faceshield. Contact lenses should not be worn. Provide an emergency eye wash fountain and quick drench shower in the immediate work area.

### Protective Clothing

For the gas: Protective clothing is not required. For the liquid: Wear appropriate protective, cold insulating clothing.

### Glove Recommendations

For the gas: Protective gloves are not required, but recommended. For the liquid: Wear insulated gloves.

### Respiratory Protection

The following respirators and maximum use concentrations are drawn from NIOSH and/or OSHA.

At any detectable concentration -

Any self-contained breathing apparatus that has a full face piece and is operated in a pressure-demand or other positive pressure mode.

Any supplied-air respirator with a full face piece that is operated in a pressure-demand or other positive-pressure mode in combination with an auxiliary self-contained apparatus operated pressure-demand or other positive-pressure mode.

Escape-

Any air purifying full-face piece respirator (gas mask) with a chin-style, front-mounted or back-mounted canister providing protection against the compound of concern.

Any appropriate escape-type, self-contained breathing apparatus.

For Unknown Concentrations or Immediately Dangerous to Life or Health-

Any supplied-air respirator with a full face piece that is operated in a pressure-demand or other positive-pressure mode in combination with an auxiliary self-contained breathing apparatus operated in pressure-demand or other positive-pressure mode.

Any self-contained breathing apparatus that has a full face piece and is operated in a pressure-demand or other positive-pressure mode.

## \*\*\*Section 9 - PHYSICAL AND CHEMICAL PROPERTIES\*\*\*

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<b>Physical State:</b> gas	<b>Appearance:</b> Colorless gas
<b>Color:</b> colorless	<b>Physical Form:</b> compressed gas
<b>Odor:</b> odorless	<b>Odor Threshold:</b> Not available
<b>pH:</b> Not available	<b>Melting/Freezing Point:</b> -189.2 °C
<b>Boiling Point:</b> -185.9 °C @1 atm.	<b>Flash Point:</b> non-flammable
<b>Decomposition:</b> Not available	<b>Evaporation Rate:</b> Not available
<b>LEL:</b> Not available	<b>UEL:</b> Not available
<b>Vapor Pressure:</b> Not available	<b>Vapor Density (air = 1):</b> Not available
<b>Density:</b> 0.103 lb/ft <sup>3</sup>	<b>Water Solubility:</b> 0.056
<b>Log KOW:</b> Not available	<b>Coeff. Water/Oil Dist:</b> Not available
<b>Auto Ignition:</b> Not available	<b>Viscosity:</b> Not available

## \*\*\*Section 10 - STABILITY AND REACTIVITY\*\*\*

### Reactivity

No reactivity hazard is expected.

### Chemical Stability

Stable at normal temperatures and pressure.

### Conditions to Avoid

Avoid heat, flames, sparks and other sources of ignition. Containers may rupture or explode if exposed to heat.

### Possibility of Hazardous Reactions

Will not polymerize.

### Incompatible Materials

amines, bases, combustible materials, halocarbons, metal salts, metals, oxidizing material, reducing agents

### Decomposition Products

miscellaneous decomposition products

## \*\*\*Section 11 - TOXICOLOGICAL INFORMATION\*\*\*

### Acute and Chronic Toxicity

#### Component Analysis - LD50/LC50

The components of this material have been reviewed in various sources and no selected endpoints have been identified.

#### RTECS Acute Toxicity (selected)

The components of this material have been reviewed and RTECS publishes no data as of the date on this document.

#### Immediate Effects

frostbite, suffocation

#### Delayed Effects

No information on significant adverse effects.

#### Irritation/Corrosivity Data

No animal testing data available for skin or eyes.

#### RTECS Irritation

The components of this material have been reviewed and RTECS publishes no data as of the date on this document.

#### Respiratory Sensitizer

No data available.

#### Dermal Sensitizer

No data available.

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## Carcinogenicity

### Component Carcinogenicity

None of this product's components are listed by ACGIH, IARC, NTP, OSHA or DFG.

## Mutagenic Data

No data available for the mixture.

## RTECS Mutagenic

The components of this material have been reviewed, and RTECS publishes data for one or more components.

## Reproductive Effects Data

No data available for the mixture.

## RTECS Reproductive Effects

The components of this material have been reviewed, and RTECS publishes the following endpoints:

### Oxygen (7782-44-7)

10 pph Inhalation Mouse TCLo (24 hour, pregnant 8 day(s)); 10 pph Inhalation Rat TCLo (9 hour, pregnant 22 day(s)); 10 pph Inhalation Rat TCLo (12 hour, pregnant 22 day(s)); 12 pph Inhalation Woman TCLo (10 minute(s), pregnant 26-39 week)

## Tumorigenic Data

No data available for the mixture.

## RTECS Tumorigenic

The components of this material have been reviewed, and RTECS publishes data for one or more components.

## Specific Target Organ Toxicity - Single Exposure

No data available.

## Specific Target Organ Toxicity - Repeated Exposure

No data available.

## Aspiration Hazard

Not applicable.

## Medical Conditions Aggravated by Exposure

respiratory disorders

## \*\*\*Section 12 - ECOLOGICAL INFORMATION\*\*\*

### Component Analysis - Aquatic Toxicity

No LOLI ecotoxicity data are available for this product's components.

### Persistence and Degradability

No data available for the mixture.

### Bioaccumulative Potential

No data available for the mixture.

### Mobility in Environmental Media

No data available for the mixture.

### Other Ecological Information

This gas will be dissipated rapidly in well ventilated areas.

## \*\*\*Section 13 - DISPOSAL CONSIDERATIONS\*\*\*

### Disposal Methods

Dispose in accordance with all applicable regulations.

### Component Waste Numbers

The U.S. EPA has not published waste numbers for this product's components.

## \*\*\*Section 14 - TRANSPORT INFORMATION\*\*\*

### US DOT Information

**Shipping Name:** Compressed gas, n.o.s. (Contains: Argon, Oxygen)

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UN/NA #: UN1956 Hazard Class: 2.2

Required Label(s): 2.2

## IMDG Information

Shipping Name: Compressed gas, n.o.s. (Contains: Argon, Oxygen)

UN #: UN1956 Hazard Class: 2.2

Required Label(s): 2.2

## \*\*\*Section 15 - REGULATORY INFORMATION\*\*\*

### Component Analysis

#### U.S. Federal Regulations

None of this products components are listed under SARA Sections 302/304 (40 CFR 355 Appendix A), SARA Section 313 (40 CFR 372.65), CERCLA (40 CFR 302.4), TSCA 12(b), or require an OSHA process safety plan.

#### SARA 311/312 Hazardous Categories

Acute Health: Yes Chronic Health: No Fire: No Pressure: Yes Reactive: No

#### U.S. State Regulations

The following components appear on one or more of the following state hazardous substances lists:

Component	CAS	CA	MA	MN	NJ	PA
Argon	7440-37-1	No	Yes	Yes	Yes	Yes
Oxygen	7782-44-7	No	Yes	No	Yes	Yes

Not regulated under California Proposition 65

#### Component Analysis - Inventory

All the components of this substance are listed on or are exempt from the TSCA inventory listing.

#### Component Analysis - Inventory

Component	CAS	US	CA	EU	AU	PH	JP	KR	CN	NZ
Argon	7440-37-1	Yes	DSL	EIN	Yes	Yes	No	Yes	Yes	Yes
Oxygen	7782-44-7	Yes	DSL	EIN	Yes	Yes	No	Yes	Yes	Yes

## \*\*\*Section 16 - OTHER INFORMATION\*\*\*

NFPA Ratings: Health: 3 Fire: 0 Reactivity: 0

Hazard Scale: 0 = Minimal 1 = Slight 2 = Moderate 3 = Serious 4 = Severe

New SDS: 11/4/2011

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## Key / Legend

ACGIH - American Conference of Governmental Industrial Hygienists; ADR - European Road Transport; AU - Australia; BOD - Biochemical Oxygen Demand; C - Celsius; CA - Canada; CAS - Chemical Abstracts Service; CERCLA - Comprehensive Environmental Response, Compensation, and Liability Act; CN - China; CPR - Controlled Products Regulations; DFG - Deutsche Forschungsgemeinschaft; DOT - Department of Transportation; DSL - Domestic Substances List; EEC - European Economic Community; EINECS - European Inventory of Existing Commercial Chemical Substances; EPA - Environmental Protection Agency; EU - European Union; F - Fahrenheit; IARC - International Agency for Research on Cancer; IATA - International Air Transport Association; ICAO - International Civil Aviation Organization; IDL - Ingredient Disclosure List; IMDG - International Maritime Dangerous Goods; JP - Japan; Kow - Octanol/water partition coefficient; KR - Korea; LEL - Lower Explosive Limit; LOLI - List Of Lists™ - ChemADVISOR's Regulatory Database; MAK - Maximum Concentration Value in the Workplace; MEL - Maximum Exposure Limits; NFPA - National Fire Protection Agency; NIOSH - National Institute for Occupational Safety and Health; NJTSR - New Jersey Trade Secret Registry; NTP - National Toxicology Program; NZ - New Zealand; OSHA - Occupational Safety and Health Administration; PH - Philippines; RCRA - Resource Conservation and Recovery Act; RID - European Rail Transport; RTECS - Registry of Toxic Effects of Chemical Substances®; SARA - Superfund Amendments and Reauthorization Act; STEL - Short-term Exposure Limit; TDG - Transportation of Dangerous Goods; TSCA - Toxic Substances Control Act; TWA - Time Weighted Average; UEL - Upper Explosive Limit; US - United States

## Other Information

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End of Sheet 00244421